

ABSTRACT OF THE INVENTION

An chimerical polypeptide that arrests proliferating cells in mitosis is provided. In general the polypeptide has an N-terminal transit peptide, such as HIV-1 Tat, and a C-terminal cell-cycle effector, such as a G2/M cyclin or a cytostatic factor. A
5 polynucleotide under the control of a heterologous promoter that encodes a polypeptide that arrests cells in mitosis is also provided. The polynucleotide may, for example, encode a G2/M cyclin. Pharmaceutical compositions comprising the agent that inhibits transit through mitosis is provided. A method of treating patients suffering from a hyperplasia, such as cancer, psoriasis or benign prostate hyperplasia is provided.